



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-0495; Directorate Identifier 2014-NM-172-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain The Boeing Company Model 737-300, -400, and -500 series airplanes. This proposed AD was prompted by reports of cracking at certain fastener locations in the window corners of the window belt area. This proposed AD would require repetitive high frequency eddy current (HFEC) inspections for fatigue cracking in certain fastener locations in the window corners of the window belt area, and related investigative and corrective actions if necessary. This proposed AD would also provide an optional preventive modification that would terminate the repetitive inspections at the modified location. We are proposing this AD to detect and correct fatigue cracking around fastener locations that could cause multiple window corner skin cracks, which could result in rapid decompression and loss of structural integrity of the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-0495.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-0495; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Haytham Alaidy, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6573; fax: 425-917-6590; email: haytham.alaidy@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2015-0495; Directorate Identifier 2014-NM-172-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We have received reports of cracking at certain fastener locations in the window corners of the window belt. At the time of the crack detection, the airplanes had accumulated between 37,842 and 49,050 total flight cycles. Fatigue cracking of the fastener locations in the window corners of the window belt area between station (STA) 360 and STA 540 and between STA 727 and STA 908, left-side and right-side of the fuselage, at and between stringers S-11 and S-13, if not corrected, could result in cracking around fastener locations that could cause multiple window corner skin cracks, which could result in rapid decompression and loss of structural integrity of the airplane.

Related Service Information

We reviewed Boeing Alert Service Bulletin 737-53A1328, dated July 22, 2014. The service information describes procedures for inspections, preventative modification, and repairs of the window corners. Refer to this service information for information on the procedures and compliance times. This service information is reasonably available; see ADDRESSES for ways to access this service information.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in the service information identified previously.

The phrase "related investigative actions" is used in this proposed AD. "Related investigative actions" are follow-on actions that (1) are related to the primary actions, and (2) further investigate the nature of any condition found. Related investigative actions in an AD could include, for example, inspections.

The phrase "corrective actions" is used in this proposed AD. "Corrective actions" are actions that correct or address any condition found. Corrective actions in an AD could include, for example, repairs.

Explanation of "RC" Steps in Service Information

The FAA worked in conjunction with industry, under the Airworthiness Directive Implementation Aviation Rulemaking Committee (ARC), to enhance the AD system. One enhancement was a new process for annotating which steps in the service information are required for compliance with an AD. Differentiating these steps from other tasks in the service information is expected to improve an owner's/operator's

understanding of crucial AD requirements and help provide consistent judgment in AD compliance. The steps identified as RC (required for compliance) in any service information identified previously have a direct effect on detecting, preventing, resolving, or eliminating an identified unsafe condition.

Steps that are identified as RC in any service information must be done to comply with the proposed AD. However, steps that are not identified as RC are recommended. Those steps that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an alternative method of compliance (AMOC), provided the steps identified as RC can be done and the airplane can be put back in a serviceable condition. Any substitutions or changes to steps identified as RC will require approval of an AMOC.

Differences Between this Proposed AD and the Service Information

Boeing Alert Service Bulletin 737-53A1328, dated July 22, 2014, specifies to contact the manufacturer for instructions on how to repair certain conditions, but this proposed AD would require repairing those conditions in one of the following ways:

- In accordance with a method that we approve; or
- Using data that meet the certification basis of the airplane, and that have been approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) whom we have authorized to make those findings.

Costs of Compliance

We estimate that this proposed AD affects 142 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs: required actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
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Inspection	Up to 2,312 work-hours X \$85 per hour = \$196,520 per inspection cycle	\$0	Up to \$196,520 per inspection cycle	Up to \$27,905,840 per inspection cycle
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Estimated costs: optional actions

Action	Labor cost	Parts cost	Cost per product
Preventive modification	108 work-hours X \$85 per hour = \$9,180	\$0	\$9,180

We estimate the following costs to do any necessary repairs that would be required based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need repairs:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Repair	Up to 18 work-hours X \$85 per hour = \$1,530 per repair	\$0	Up to \$1,530 per repair

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

The Boeing Company: Docket No. FAA-2015-0495; Directorate Identifier 2014-NM-172-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 737-300, -400, and -500 series airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin 737-53A1328, dated July 22, 2014.

(d) Subject

Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Unsafe Condition

This AD was prompted by reports of fatigue cracking at certain fastener locations in the window corners of the window belt area. We are issuing this AD to detect and correct fatigue cracking around the fastener locations that could cause multiple window corner skin cracks, which could result in rapid decompression and loss of structural integrity of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Inspections

At the applicable time specified in tables 1 and 2 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1328, dated July 22, 2014, except as required by paragraph (i)(1) of this AD: Do external surface high frequency eddy current (HFEC) inspections for cracking of the skin at the 12 fastener locations at the upper forward and lower aft corners of each window between station (STA) 360 and STA 540 and between STA 727 and STA 908, left-side and right-side of the

fuselage, at and between stringers S-11 and S-13, and all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1328, dated July 22, 2014, except as required by paragraph (i)(2) of this AD. Do all applicable related investigative and corrective actions before further flight. Repeat the inspections at the applicable times specified in tables 1 and 2 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1328, dated July 22, 2014, until the terminating action specified in paragraph (h) of this AD is done.

(h) Optional Preventive Modification

Accomplishment of a preventive modification in the fastener locations in the window corners of the window belt area between station (STA) 360 and STA 540 and between STA 727 and STA 908, left-side and right-side fuselage, at and between stringers S-11 and S-13, terminates the inspections required by paragraph (g) of this AD at the modified location only. The modification, including all applicable related investigative and corrective actions, must be done in accordance with Part 3 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1328, dated July 22, 2014, except as required by paragraph (i)(2) of this AD.

(i) Exceptions to the Service Bulletin Specifications

(1) Where Boeing Alert Service Bulletin 737-53A1328, dated July 22, 2014, specifies a compliance time “after the original issue date of this service bulletin,” this AD requires compliance within the specified compliance time after the effective date of this AD.

(2) Where Boeing Alert Service Bulletin 737-53A1328, dated July 22, 2014, specifies to contact Boeing for repair instructions: Before further flight, repair the cracking using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (k)(1) of this AD. Information may be emailed to:

9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) If any service information contains steps that are identified as RC (Required for Compliance), those steps must be done to comply with this AD; any steps that are not identified as RC are recommended. Those steps that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the steps identified as RC can be done and the airplane can be put back in a serviceable condition. Any substitutions or changes to steps identified as RC require approval of an AMOC

(4) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(k) Related Information

(1) For more information about this AD, contact Haytham Alaidy, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6447; fax: 425-917-6590; email: haytham.alaidy@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may view the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on March 13, 2015.

Jeffrey E. Duvon,
Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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